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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,541	08/29/2001	Takaya Sato	0171-0778P-SP	4738

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EXAMINER

CREPEAU, JONATHAN

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 02/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/940,541

Applicant(s)

SATO ET AL.

Examiner

Jonathan S. Crepeau

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1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/29/01, 8/5/02
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 2, 4, 5, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2000-21386. Regarding claims 2 and 4, the reference is directed to a lithium battery comprising a cell structure group formed by winding an integral body of the unit cell (see Fig. 2). The unit cell comprises electrode material layers laminated through a separator (3) (see Fig. 2). The cell further comprises an electrolyte which is poured into a battery container after the cell structure is inserted therein (see paragraph 22 of the machine translation). Regarding claims 2, 4, and 5, the outer periphery of the cell structure is covered with an ion impermeable and extensible high polymer sheet (4) (see abstract; Figure 3). The high polymer sheet has a tensile elongation percentage of not less than 200%, which is anticipatory of the range recited in claims 2 and 4. Regarding claim 6, the polymer may be a fluororesin, a styrene-butadiene elastomer or a polyurethane (see paragraph 30).

Thus, the instant claims are anticipated.

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3. Claims 2, 4, 5, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 10-208708. Regarding claims 2 and 4, the reference is directed to a lithium battery comprising a cell structure group formed by folding an integral body of the unit cell (see Fig. 1). The unit cell comprises electrode material layers laminated through a separator (5) (see Fig. 1). The cell further comprises an electrolyte (see paragraph 17 of the machine translation). Regarding claims 2, 4, and 5, the outer periphery of the cell structure is covered with an ion impermeable and extensible high polymer sheet (65) (see abstract; Figures 1 and 2). The high polymer sheet has a tensile elongation percentage of 500-1000%, which is anticipatory of the range recited in claims 2 and 4. Regarding claim 6, the polymer may be polypropylene (see paragraph 17). Regarding the recitation in claim 4 that the electrolyte is poured in the battery container after the cell structure group is contained therein, this is a process limitation that does not further limit the structure of the claimed product. Accordingly, the limitation is given little patentable weight. See MPEP §2112.

Thus, the instant claims are anticipated.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1, 3, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10-208708 in view of JP 2000-173564.

JP '708 is applied for the reasons stated in section 3 above. However, the reference does not expressly teach that the outermost peripheral surface of the battery container (i.e., PET layer 62) is an ion impermeable and extensible high polymer sheet having a tensile elongation percentage of 1% or more, as recited in claims 1 and 3.

JP 2000-173564 is directed to a thin battery bag body comprising an elastic thin film outer layer (see abstract; Figure 1). The layer may comprise an olefin elastomer or a styrene elastomer (see paragraph 17 of the machine translation).

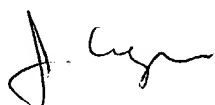
Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the artisan would be motivated by the disclosure of JP '564 to use a highly elastic thin film as the outer layer of the bag of JP '708. In the abstract, JP '564 teaches that "the outer rubber layer 6 is provided on the whole face of the surface of the bag body 1 so that the impact absorbing property can be drastically increased while holding the flexibility of the bag body 1." This disclosure would motivate the artisan to use the elastic rubber outer layer of JP '564 as the outer layer of JP '708. Although JP '564 does not appear to teach the exact tensile elongation value of the elastic outer layer, the artisan would be motivated to use a value within the range disclosed by JP '708 (i.e., 500-1000%) because the tensile elongation percentage is a measure of the elasticity of a material. Accordingly, the subject matter of claims 1, 3, and 6 would be rendered obvious to the skilled artisan.

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Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Crepeau whose telephone number is (571) 272-1299. The examiner can normally be reached Monday-Friday from 9:30 AM - 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached at (571) 272-1302. The phone number for the organization where this application or proceeding is assigned is (571) 272-1700. Documents may be faxed to the central fax server at (703) 872-9306.



Jonathan Crepeau
Patent Examiner
Art Unit 1746
February 9, 2004